

## ACS DEPARTURE MODING

### 1. ENABLE DEPARTURE SWITCH MONITORING FOR ACS MODING

PCS

MCS: ACS Moding

ACS Moding

'ACS Configuration'

√Moding Role Primary, Secondary NCS - Full

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*****
* If Primary/Secondary NCS Moding Role is not set to Full, *
* then the following commands should be sent                *
*                                                            *
* sel Moding Role                                           *
*                                                            *
* cmd N1-1 - Arm                                           *
* cmd N1-2 - Arm                                           *
* √Arm Status Primary, Secondary NCS - Arm                 *
*                                                            *
* cmd N1-1 - Full                                           *
* cmd N1-2 - Full                                           *
* √Moding Role Primary, Secondary NCS - Full               *
* √Arm Status Primary, Secondary NCS - Disarm              *
*****
```

'Departure'

sel PMA2 Departure Response SW

'Primary NCS'

cmd Enable Arm

√Arm Status - Arm

cmd Enable

√Departure SW - Ena

√Arm Status - Disarm

'Secondary NCS'

cmd Enable Arm

√Arm Status - Arm

cmd Enable

√Departure SW - Ena

√Arm Status - Disarm

### 2. VERIFY DEPARTURE EVENT SOFTWARE STATUS

'Departure'

√Departure Event Primary, Secondary NCS - Blank

PCS

3. ENABLE APAS LED LIGHTING

MCS: ACS Moding

ACS Moding

NOTE

Each of the primary and secondary commands turns on two of the four LED ACS indication lights (i.e., 4 total). LED configurations: On - Active Attitude Control, Off - Power Off, Flash - ISS in Free Drift.

'ACS Configuration'

sel LED Control SW

'Primary NCS'

**cmd** Enable

√LED Control SW - Ena

√PMA2 LED State - Flash

'Secondary NCS'

**cmd** Enable

√LED Control SW - Ena

√PMA2 LED State - Flash

Visual verification by orbiter crew that LED indicators are flashing (-Z windows).

4. MONITOR NCS SEPARATION SIGNALS AND VERIFY ORBITER DEPARTURE AND POST SEPARATION LED MODE CHANGE

Perform CONFIGURATION C&DH FOR ORBITER UNDOCKING, all, (SODF: C&DH), then:

Verify **MCC-H/MCC-M** Go for orbiter departure.

**NOTE**

1. Monitor the change in parameter values during orbiter undocking. At orbiter separation (i.e., Undocking Complete is true and Interface Sealed is false), the attitude control countdown timer is initiated.
2. Monitor the Countdown Timer. The primary Departure Event is received when the Countdown Timer reaches zero. The occurrence of this event prompts the SM to reactivate its ACS system.
3. For flights 2A through 3A, orbiter crew interface will be lost at OIU disconnect.

*The following will be conducted via ground control.*

PCS

MCS: ACS Moding

ACS Moding

'Departure'

√PMA2 Interface Sealed Primary, Secondary NCS - Blank

√PMA2 Undocking Complete Primary, Secondary NCS - X

√Countdown Timer Primary, Secondary NCS - (Decreasing)

√Departure Event Primary, Secondary NCS - X (when timer = 00:00)

5. VERIFY RUSSIAN SEGMENT MODE STATUS

'ACS Configuration'

√RS Mode Primary NCS - Cntl

√RS Mode Secondary NCS - Cntl

√PMA2 LED State Primary NCS - On

√PMA2 LED State Secondary NCS - On

Visual verification by orbiter crew that LED Indicators are On (-Z windows).